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STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER TIMBLIN, ROBERT M	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/766,839

Applicant(s)

SUZUKI, TAKAMUNE

Examiner

ROBERT TIMBLIN

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-5 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5 and 11-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This Office Action corresponds to application 10/766,839 filed on 1/30/2004.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/27/2009 has been entered.

Response to Amendment

Applicant herein amends claims 1, 11, and 14 in the response filed 4/27/2009. Claims 15-16 have been added in the amendment. Accordingly, claims 1, 3-5, and 11-16 are pending prosecution.

Claim Objections

Claims 1, and 11 are objected to because the cache update condition setting limitation should read "...determining whether a number of data records *updated* is in...." as to include "updated" in the determining clause. Such an amendment would clarify the condition clause (i.e. "if the number of data records updated...") to correspond to the determining clause.

Claim 14 is objected to because “date” records (i.e. last line of the claim) should be “data” records.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 11, 14, 15, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, claims 1, 11, and 14 recite “...the retrieval condition that is produced based on the retrieval request...” while claims 15-16 recite “...the retrieval expression that is produced based on a retrieval condition ...” Further noted, instant specification (page 8, lines 9-10) describes “...the application server 30 produces an SQL retrieval expression based on the retrieval condition.

Examiner submits that from the scope of the claims and interpretation from the specification, it is unclear and indefinite whether an expression is to be produced based on a retrieval condition or if the retrieval condition is to be produced based on the retrieval request.

Appropriate clarification and/or correction is requested.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-6, and 8-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ims et al. ('Ims' hereafter) (U.S. Patent 6,505,200). In the following citations, Ims teaches:

With respect to claim 1, An application server that retrieves data from a database management system using a retrieval condition, received from a terminal and transmits the data retrieved as a retrieval result to the terminal, comprising:

a cache memory (300) that stores in a correlated form (col. 9 line 53-65, col. 10 lines 23 and 50-56, and col. 14 line 51-67; i.e. Ims teaches retrieval logic (retrieval condition) and input properties in the execution script of the cached object to return a fresh copy of data values to...re-populate the object's output properties (retrieval result). That is, Ims teaches storing the retrieval logic with the result in the same object to describe storing them in correlated form (e.g. they are stored together and are thus correlated)) the retrieval condition (col. 10 line 50-55; e.g. input properties) and the retrieval result (figures 3A-B, col. 5 line 64-67, and col. 10 line 55-60; e.g. output properties);

an update condition setting unit (col. 14 line 33, cache manager) that sets a cache update condition (col. 13 line 63; e.g. refresh policy, col. 15 line 64; e.g. update mode) that indicates when the cache memory is to be updated (col. 13 line 31-65 cache policy),

an update processing unit (col. 16 line 58-62; i.e. processing an update with a script) that determines whether to transmit a retrieval request (col. 13 line 56-col. 14 line 7) based on the cache update condition (col. 13 line 63; e.g. refresh policy, col. 15 line 64; e.g. update mode) and,

a main controlling unit (drawing references 43/315) that sends (drawing reference 303), to the database management system (col. 2 line 40-41, col. 14 line 53-55), the retrieval condition (col. 10 line 50-55; e.g. input properties) that is produced based on the retrieval request (col. 13 line 56-col. 14 line 7) received from the update processing unit (col. 16 line 58-62; i.e. processing an update with a script) and receives the retrieval result (col. 14 line 53-57; e.g. results as output properties) of a database from the database management system (col. 2 line 40-41, col. 14 line 53-55) and stores the retrieval condition (col. 10 line 50-55; e.g. input properties) and the retrieval result (col. 14 line 53-57; e.g. results as output properties) in the correlated form (col. 9 line 53-65, col. 10 lines 50-53, and col. 14 line 51-67; i.e. lms teaches retrieval logic (retrieval condition) and input properties in the execution script of the cached object to return a fresh copy of data values to...re-populate the object's output properties (retrieval result) in the cache memory (300), wherein

the update condition setting unit (col. 13 line 33, cache manager) sets the cache update condition (col. 13 line 63; e.g. refresh policy, col. 15 line 64; e.g. update mode) by acquiring data updated within a predetermined period (e.g. a count of updates, col. 15 line 60-61; e.g. updates found between 8 a.m. and 5 p.m. or otherwise a particular time period) from the database, and determining whether a number of data records is in a fixed range (col. 15 line 54-64; e.g. the number of updates requested within a particular time period (e.g. col. 15 line 54-58) and altering the update mode accordingly), and if the number of data records updated (col. 15 line 56; updates requested) is not in the fixed range (col. 15 line 58; 5 p.m. and midnight), the update condition setting unit sets the cache update condition (col. 13 line 63; e.g. refresh policy, col. 15 line 64; e.g. update mode) such that the number of data records updated (updated col. 15 line 56; updates requested) fall in the fixed range (col. 15 line 20-33 and line 55-58; e.g. delaying updates to be processed when traffic is low).

With respect to claim 3, the application server according to claim 1, wherein, when searching the database, the update processing unit acquires a database update condition that indicates when the database is updated and the update condition setting unit sets the cache update condition based on the database update condition acquired (col. 5 line 10-20, col. 10 line 8-15, and col. 13 line 65-col. 14 line 1-7).

With respect to claim 4, the application server according to claim 1, wherein a user sets the cache update condition (col. 10 lines 37-48).

With respect to claim 5, the application server according to claim 1, wherein the update processing unit sets next and subsequent cache update conditions using a date and a time of the retrieval result updated (col. 15 lines 52-60).

With respect to claim 11, An application server system comprising:

a plurality of application servers (figure 2, and 5 and col. 9 line 35-40), each of which retrieves data from a database management system using a retrieval request condition, received from a terminal and transmits the data retrieved as a retrieval result to the terminal, each application server including (abstract and figure 3A-3B)

a cache memory (drawing reference 300) that stores in a correlated form (col. 9 line 53-65, col. 14 line 51-67) the retrieval condition and the retrieval result (figures 3A-B, col. 5 line 64-67);

an update condition setting unit (col. 13 line 33) that sets a cache update condition (col. 13 line 63; e.g. refresh policy, col. 15 line 64; e.g. update mode) that indicates when the cache memory is to be updated;

an update processing unit (col. 16 line 58-62) that determines whether to transmit a retrieval condition (col. 13 line 56-col. 14 line 7) from the cache memory (300) upon fulfillment of the cache update condition (col. 16 line 58-67), and

a main controlling unit (drawing references 43/315) that sends (drawing reference 303), to the database management system (col. 2 line 40-41, col. 14 line 53-55), the retrieval condition (col. 10 line 50-55; e.g. input properties) that is produced

based on the retrieval request (col. 13 line 56-col. 14 line 7) received from the update processing unit (col. 16 line 58-62; i.e. processing an update with a script) and receives the retrieval result of a database from the database management system and stores the retrieval condition (col. 10 line 50-55; e.g. input properties) and the retrieval result (col. 14 line 53-57; e.g. results as output properties) in the correlated form (col. 9 line 53-65, col. 10 lines 50-53, and col. 14 line 51-67; i.e. lms teaches retrieval logic (retrieval condition) and input properties in the execution script of the cached object to return a fresh copy of data values to...re-populate the object's output properties (retrieval result) in the cache memory (300), wherein

the update condition setting unit sets the cache update condition (col. 13 line 63; e.g. refresh policy, col. 15 line 64; e.g. update mode) by acquiring data updated within a predetermined period (e.g. a count of updates, col. 15 line 60; e.g. updates found between 8 a.m. and 5 p.m.) from the database, and determining whether a number of data records is in a fixed range (col. 15 line 54-64; e.g. the number of updates requested within a particular time period (e.g. col. 15 line 54-58) and altering the update mode accordingly), and if the number of data records updated (col. 15 line 56; updates requested) is not in the fixed range (col. 15 line 58; 5 p.m. and midnight), the update condition setting unit sets the cache update condition (col. 13 line 63; e.g. refresh policy, col. 15 line 64; e.g. update mode) such that the number of data records updated (updated col. 15 line 56; updates requested) fall in the fixed range (col. 15 line 20-33 and line 55-58; e.g. delaying updates to be processed when traffic is low).

With respect to claim 12, the application server system according to claim 11, wherein the cache update condition of each application server differs from the cache update condition of any other application server (col. 15 line 65-67).

With respect to claim 13, the application server system according to claim 11, wherein the cache update condition of all the application servers is identical (figure. 3B, and col. 18 line 30-35).

With respect to claim 14, A cache update method comprising:

storing a retrieval condition (col. 10 line 50-55; e.g. input properties) received from a terminal that includes a retrieval condition (col. 10 line 50-55; e.g. input properties) and a retrieval result (figures 3A-B, col. 5 line 64-67) retrieved using the retrieval request in a correlated form (col. 9 line 53-65, col. 14 line 51-67) in a cache memory (drawing reference 300);

reading the retrieval result from the cache memory when a retrieval request is identical to the stored retrieval request (col. 5 line 9-45);

setting a cache update condition based on a database update condition that indicates when the cache memory is to be updated (col. 13 line 31-65 cache policy);

determining whether to transmit a retrieval request (col. 13 line 56-col. 14 line 7) based on the cache update condition (col. 13 line 63; e.g. refresh policy, col. 15 line 64; e.g. update mode);

sending (drawing reference 303), to the database management system (col. 2 line 40-41, col. 14 line 53-55), the retrieval condition (col. 10 line 50-55; e.g. input properties) that is produced based on the retrieval request (col. 13 line 56-col. 14 line 7) at the determining;

receiving the retrieval result (col. 14 line 53-57; e.g. results as output properties) of a database from the database management system (col. 2 line 40-41, col. 14 line 53-55); and

storing the retrieval condition (col. 10 line 50-55; e.g. input properties) and the retrieval result (col. 14 line 53-57; e.g. results as output properties) in the correlated form (col. 9 line 53-65, col. 10 lines 50-53, and col. 14 line 51-67; i.e. lms teaches retrieval logic (retrieval condition) and input properties in the execution script of the cached object to return a fresh copy of data values to...re-populate the object's output properties (retrieval result) in the cache memory (300); wherein

the setting includes setting the cache update condition (col. 13 line 63; e.g. refresh policy, col. 15 line 64; e.g. update mode) by acquiring data updated within a predetermined period (e.g. a count of updates, col. 15 line 60; e.g. updates found between 8 a.m. and 5 p.m.) from the database, and determining whether the number of data records is in a fixed range (col. 15 line 54-64; e.g. the number of updates requested within a particular time period (e.g. col. 15 line 54-58) and altering the update mode accordingly), and if the number of data records updated (col. 15 line 56; updates requested) is not in the fixed range (col. 15 line 58; 5 p.m. and midnight), the update condition setting unit sets the cache update condition (col. 13 line 63; e.g. refresh policy,

col. 15 line 64; e.g. update mode) such that the number of date records updated (updated col. 15 line 56; updates requested) fall in the fixed range (col. 15 line 20-33 and line 55-58; e.g. delaying updates to be processed when traffic is low).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ims in view of Mah et al. ('Mah' hereafter) U.S. Patent Application 7,092,955.

With respect to claim 15, Ims teaches An application server comprising:

a cache memory (300) that stores therein in a correlated form (col. 9 line 53-65, col. 10 lines 23 and 50-56, and col. 14 line 51-67; i.e. Ims teaches retrieval logic (retrieval condition) and input properties in the execution script of the cached object to return a fresh copy of data values to...re-populate the object's output properties (retrieval result). That is, Ims teaches storing the retrieval logic with the result in the same object to describe storing them in correlated form (e.g. they are stored together and are thus correlated)) a retrieval expression (taught by Mah, below) and a retrieval result (figures 3A-B, col. 5 line 64-67, and col. 10 line 55-60; e.g. output properties); and

a main controlling unit (drawing references 43/315) that sends (drawing reference 303), to a database management system (col. 2 line 40-41, col. 14 line 53-55), the retrieval expression (taught by Mah, below) that is produced based on a retrieval condition (col. 10 line 50-55; e.g. input properties) received from a client terminal (10) or read from the cache memory (300) at a given interval (col. 14 line 63-67), receives the retrieval result (figures 3A-B, col. 5 line 64-67, and col. 10 line 55-60; e.g. output properties) of a database (col. 14 line 7) by the retrieval expression from the database management system (col. 2 line 40-41, col. 14 line 53-55), and stores the retrieval expression (taught by Mah, below) and the retrieval result (col. 14 line 53-57; e.g. results as output properties) in the correlated form (col. 9 line 53-65, col. 10 lines 50-53, and col. 14 line 51-67; i.e. lms teaches retrieval logic (retrieval condition) and input properties in the execution script of the cached object to return a fresh copy of data values to...re-populate the object's output properties (retrieval result) in the cache memory (300).

Although lms teaches storing values for a look up operation in correlation with the retrieved results (e.g. col. 10 lines 49-65) lms does not expressly teach a retrieval expression.

Mah, however, teaches a retrieval expression (e.g. figure 3, col. 5 line 11-23) in an object for results retrieval.

Accordingly, in the same field of endeavor, (i.e. information retrieval), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the

expression as taught by Mah would have given Ims an expression (e.g. SQL statement) of the input properties used for retrieval for the benefit of more efficiently performing a lookup operation. Furthermore, the use of an expression (from Mah) of Ims' input properties would have given ease to their bean's script that executes a lookup operation (needed by Ims, col. 10 lines 53).

With respect to claim 16, Ims teaches A cache control method comprising:

storing a retrieval expression (taught by Mah, below) and a retrieval result (figures 3A-B, col. 5 line 64-67, and col. 10 line 55-60; e.g. output properties) in a correlated form (col. 9 line 53-65, col. 10 lines 23 and 50-56, and col. 14 line 51-67; i.e. Ims teaches retrieval logic (retrieval condition) and input properties in the execution script of the cached object to return a fresh copy of data values to...re-populate the object's output properties (retrieval result). That is, Ims teaches storing the retrieval logic with the result in the same object to describe storing them in correlated form (e.g. they are stored together and are thus correlated) in a cache memory (300); and

sending (drawing reference 303), to a database management system (col. 2 line 40-41, col. 14 line 53-55), the retrieval expression (taught by Mah, below) that is produced based on a retrieval condition (col. 10 line 50-55; e.g. input properties) received from a client terminal (10) or read from the cache memory (300) at a given interval (col. 14 line 63-67);

receiving the retrieval result (figures 3A-B, col. 5 line 64-67, and col. 10 line 55-60; e.g. output properties) of a database (col. 14 line 7) by the retrieval expression

(taught by Mah, below)from the database management system (col. 2 line 40-41, col. 14 line 53-55); and

storing the retrieval expression (taught by Mah, below) and the retrieval result (col. 14 line 53-57; e.g. results as output properties) in the correlated form (col. 9 line 53-65, col. 10 lines 50-53, and col. 14 line 51-67; i.e. Ims teaches retrieval logic (retrieval condition) and input properties in the execution script of the cached object to return a fresh copy of data values to...re-populate the object's output properties (retrieval result) in the cache memory (300).

Although Ims teaches storing values for a look up operation in correlation with the retrieved results (e.g. col. 10 lines 49-65) Ims does not expressly teach a retrieval expression.

Mah, however, teaches a retrieval expression (e.g. figure 3, col. 5 line 11-23) in an object for results retrieval.

Accordingly, in the same field of endeavor, (i.e. information retrieval), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the expression as taught by Mah would have given Ims an expression (e.g. SQL statement) of the input properties used for retrieval for the benefit of more efficiently performing a lookup operation. Furthermore, the use of an expression (from Mah) of Ims' input properties would have given ease to their bean's script that executes a lookup operation (needed by Ims, col. 10 lines 53).

Response to Arguments

Applicant's arguments filed in the reply filed 4/27/2009 (i.e. 'reply') have been fully considered but they are not persuasive

On pages 6-8 of the reply Applicant reiterates the argument that Ims does not teach a retrieval condition by stating the input properties at col. 10 lines 51 and 52 are not equivalent to the retrieval *condition*. Accordingly, Examiner maintains and incorporates previous responses to this argument from the prior action (e.g. see Final Office Action dated 11/26/2008, section A).

Substantially, Examiner maintains: Ims specifies the input properties (i.e. categories or book titles) *are used in retrieving available book inventory information* (Ims, col. 10, line 51-53). In other words, Ims' input properties are essentially values used in the retrieval of information. Because the input properties of Ims are used to retrieve information (i.e. col. 10 line 55, Ims states getting results with the input properties), they specify a retrieval condition that must be met to return results.

Furthermore, Applicant contends that the claimed retrieval condition and Ims' values used in retrieval (e.g. categories or book titles – col. 10 line 51-53) are not equivalent. The Examiner asserts that, from the above interpretation, the categories and book titles at least describe the broadly claimed "retrieval condition." Furthermore the Examiner submits that from review of Applicant's own disclosure (page 9, line 8-9), which specifies "using the retrieval conditions (the SQL retrieval expression)", this interpretation is reasonable. In other words, Applicant's retrieval condition can be a

SQL expression for accessing a database. Likewise, since Ims' input properties specify what to retrieve from a database, they can readily be seen as Applicant's retrieval condition (i.e. a retrieval statement).

Additionally, Examiner submits that the input properties of Ims that are used to retrieve results. As directly corresponding to Applicant's retrieval condition, which, is read to retrieve data as a result from a database¹, Examiner submits that Ims teaches the claimed retrieval condition. Put another way, the input properties of Ims are used to perform a database lookup to provide results (Ims, col. 10 line 54-56). Put even another way, the data values of Ims' input properties can be interpreted as a condition such that they are a condition on which to retrieve data. In a likely scenario supported by Ims, input properties such as category names or book titles satisfy a 'condition' that must be met for certain results to be retrieved. Examiner submits that in light of the disclosure and a reasonably broad interpretation according to MPEP 2111, the input properties as taught by Ims correlate to the retrieval condition described in the claims

Further more, in response to applicant's argument that the references fail to show certain features of applicant's invention (i.e., p. 7 of the reply that neither a category name nor book title are equivalent to an SQL retrieval expression), it is noted that the features upon which applicant relies (i.e., an SQL retrieval expression) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988

¹ See at least Applicant's abstract stating "an update processing unit that reads the retrieval condition from the cache memory upon fulfillment of the cache update condition, retrieves data as the retrieval result from the database using the retrieval condition"

F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Examiner notes, however, that an expression is taught by the Mah reference respective to claims 15-16. Further arguments are considered moot.

On pages 8-9 of the reply Applicant reiterates the argument that "Whether properties are stored together or not has no bearing on whether they are stored in correlated or, for that matter, uncorrelated form. Accordingly, Examiner maintains and incorporates previous responses to this argument from the prior action (e.g. see Final Office Action dated 11/26/2008 Section B).

Substantially, Examiner maintains: that the input properties (i.e. the retrieval condition to get results) and the output properties (i.e. results retrieved from the retrieval condition) are stored in correlated form. Specifically, the input and output properties in lms are stored in an instance of a [Java] bean (lms, col. 10 line 54-65). Because these properties are stored *together* in the instance of a bean, they are stored in correlated form. In other words, the retrieval condition (input properties) and retrieval results (output properties) are populated into a bean object.

In response to the reply, the Examiner further clarifies the position taken in this aspect of storing, in correlated form, the retrieval condition and retrieval result. As previously mentioned, the input properties (retrieval condition) and retrieval results (results of the lookup operation using the input properties; col. 10 line 54-56) at least describe the broadly claimed "in correlated form". In other words, Applicant claims no further details as to specify what "in a correlated form" is to precisely comprise and as

such is open to broad interpretation. Therefore with the interpretation of storing these two aspects together in an object (i.e. a bean), this object gives the two elements (input/output properties) a relation (or "correlation"), and thus this limitation is taught.

Moreover, Ims teaches "in correlated form" in another example (e.g. col. 14 line 51-57). That is, Ims teaches a refreshing of a cached object wherein retrieval logic in the execution script of the cached object (col. 14 line 52-53) which are used to refresh (i.e. re-populating) the objects output properties (col. 14 line 56-57). Put another way, since the retrieval logic *in* a cached object is used to *refresh* that *same* object's output properties (results), the object stores the retrieval condition and result in correlated form.

Additionally, Examiner submits that input properties (i.e. values or conditions on which to retrieve results) and output properties (i.e. the results of retrieval) that are contained in an object (as taught by Ims, col. 10 lines 50-65) are to teach a "correlated form" as taught by the claims and interpreted from the specification. That is, and as can be reasonably interpreted, "correlated form" can be seen as merely stored together. See for example, figure 1, and drawing reference 35 which is supported by page 6, line 6 of the instant disclosure. Therein, "correlated form" is illustrated by the retrieval system and retrieval result stored together in a single entity. As such, Ims' teaches an object that stores retrieval conditions and retrieval results to thereby teach a correlation (i.e. in correlated form) at least by a mutual association to the same object. Examiner further submits that because inputs are executed to retrieve corresponding outputs, and that said inputs and outputs are stored together, that this also teaches a "correlated

form". Examiner reiterates that absent further definition or clarification of "correlated form", this claim limitation as presented can be interpreted in this manner.

On page 9 of the reply, Applicant argues "Neither a predetermined period nor a particular time period is a range of data records".

In response to Applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "range of data records") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Further arguments are considered moot.

Additionally, Examiner submits that as broadly claimed, a "fixed range" is not limited to a "fixed range of data records." Rather, as the specification of the fixed range is lacking, the fixed range can be interpreted as a range of time such as provided in the above Office Action. Examiner maintains that Ims teaches this aspect at least by a delay of updates. In an example, Examiner submits that Ims has a 'fixed range' (e.g. 5 p.m. and midnight) and acquires data updated within a predetermined period (e.g. accumulates updates made in a timeframe in which the system is heavily used, Ims col. 15 line 55). Thereafter, it can be seen that if the data updated in the heavily use timeframe is not in the fixed range (e.g. 5 p.m. and midnight), those updates are delayed so that they are updated within the fixed range (e.g. 5 p.m. and midnight). Put

another way, the update condition is set to update data when the fixed ranged is reached so that the number of data records updated fall within the fixed range.

Applicant substantially argues the above three issues as well as new claims 15-16 on pages 10-20 of the reply. Examiner respectfully maintains the according rationale provided above and further submits the arguments are moot in view of the new ground of rejection necessitated by the amendments. Examiner notes the claims have been given their broadest reasonable interpretation in light of the specification. MPEP 2111.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,933,832 to Suzuoka et al. The subject matter disclosed therein pertains to the pending claims (i.e. specified range for updates).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Timblin whose telephone number is 571-272-5627. The examiner can normally be reached on M-Th 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

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Examiner, Art Unit 2167

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